

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

Claim 1 (Previously Presented): A phosphocalcic compound, having the following chemical composition:

$\text{Ca}_{(10-a)} (\text{Mg}, \text{K}, \text{Na})_b (\text{PO}_4)_{6-c} (\text{HPO}_4, \text{CO}_3)_d (\text{OH})_{2-e} (\text{F}, \text{Cl}, \text{CO}_3)_f [(\text{OA}) (\text{OE}) \text{P} (\text{O}) -\text{CR}^1 \text{R}^2 -\text{P} (\text{O}) (\text{OA}) (\text{OE})]_g$, in which $0 < a < 9$; $0 < b < 2$; $0 < c < 5$; $0 < d < 2$; $0 < e < 2$; $0 < f < 2$; $g < 0.5$, A and E represent H, an alkali metal, an alkaline-earth metal or nothing, R^1 represents H, OH or a halogen and R^2 represents an element chosen from a hydrogen, a halogen, an alkyl radical, an aminoalkyl radical in which the amino group optionally bears an alkyl substituent, an alkylamino radical, an alkyl radical bearing an aromatic substituent comprising at least one N atom wherein the aromatic substituent is not imidazolyl or pyridyl, and an alkyl radical bearing an aromatic thioether group.

Claim 2 (Previously Presented): The compound as claimed in claim 1, wherein R^1 and/or R^2 represent Cl.

Claim 3 (Previously Presented): The compound as claimed in claim 1, wherein R^2 is a radical containing from 1 to 6 carbon atoms.

Claim 4 (Previously Presented): The compound as claimed in claim 1, wherein R^2 is an aminoalkyl radical $NH_2(CH)_n-$ in which n is less than 6.

Claim 5 (Previously Presented): The compound as claimed in claim 1, wherein R^2 is an alkylaminoalkyl radical $R'R''N(CH_2)_m-$ in which R' and R'' represent, independently of each other, H or an alkyl radical containing up to 5 carbon atoms, and m is less than 6.

Claim 6 (Previously Presented): The compound as claimed in claim 1, wherein R^2 is an alkylamino radical R^cNH- in which R^c is a cycloalkyl containing from 3 to 7 carbon atoms.

Claim 7 (Canceled)

Claim 8 (Previously Presented): The compound as claimed in claim 1, wherein R^2 is an alkyl radical containing up to 3 carbon atoms and bearing a phenylthio group in which the phenyl group optionally bears a halogen substituent.

Claim 9 (Currently Amended): The compound as claimed in claim 1, wherein R^1 is OH, R^2 is $-CH_2-$ imidazole, A and E $[[C]]$ represent H.

Claim 10 (Previously Presented): A process for preparing a modified phosphocalcic compound as claimed in claim 1, comprising adding a gem-biphosphonic acid or an alkali metal or alkaline-earth metal salt thereof to a

suspension of a precursor phosphocalcic compound in ultrapure water, stirring the reaction medium at room temperature and then recovering the formed compound therefrom by centrifugation.

Claim 11 (Previously Presented): The process as claimed in claim 10, wherein the compound formed is purified by washing with ultrapure water, followed by filtering and drying in air at room temperature.

Claim 12 (Previously Presented): The process as claimed in claim 10, wherein the precursor phosphocalcic compound is chosen from calcium orthophosphates with a solubility in water of greater than $4 \times 10^{-59} \text{ mol.l}^{-1}$.

Claim 13 (Previously Presented): The process as claimed in claim 12, wherein the phosphocalcic compound is chosen from BCP, CDA, which is a calcium-deficient hydroxyapatite, and β -TCP.

Claim 14 (Previously Presented): The process as claimed in claim 10, wherein the stirring at room temperature is maintained for a period of between 1 hour and 72 hours.

Claim 15 (Previously Presented): The process as claimed in claim 10, wherein the acids or salts used as gem-biphosphonic compounds correspond to the formula $(\text{OY}) (\text{OX}) \text{P} (\text{O}) -\text{CR}^1\text{R}^2-\text{P}(\text{O}) (\text{OX}) (\text{OY})$ in which X and Y represent,

independently of each other, H or an alkali metal or alkaline-earth metal cation, R^1 represents H, OH or a halogen, and R^2 represents:

- a hydrogen or a halogen,
- an alkyl radical,
- an aminoalkyl radical in which the amino group optionally bears an alkyl substituent,
- an alkylamino radical,
- an alkyl radical bearing an aromatic substituent comprising at least one N atom, or
- an alkyl radical bearing an aromatic thioether group.

Claim 16 (Previously Presented): A composition suitable for use by injection for the treatment of osteoporosis or relapses of lytic tumors by inhibition of osteoclast activity, comprising a suspension of the modified phosphocalcic compound as claimed in claim 1, in a biocompatible gel or solution having a viscosity that allows the transportation of granules of between 40 μm and 500 μm in size.

Claim 17 (Previously Presented): The composition as claimed in claim 16, wherein the biocompatible gel is a hydrogel.

Claim 18 (Previously Presented): The composition as claimed in claim 17, wherein the gel is a cellulose-based hydrogen or a hydrogel based on sodium hyaluronate.